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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0212760 A1****Marvit et al.**(43) **Pub. Date: Sep. 29, 2005**(54) **GESTURE BASED USER INTERFACE
SUPPORTING PREEXISTING SYMBOLS**(76) Inventors: **David L. Marvit**, San Francisco, CA
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BAKER BOTTS L.L.P.**2001 ROSS AVENUE****SUITE 600****DALLAS, TX 75201-2980 (US)**(21) Appl. No.: **10/807,572**(22) Filed: **Mar. 23, 2004****Publication Classification**(51) **Int. Cl.⁷ G09G 5/00**(52) **U.S. Cl. 345/156**(57) **ABSTRACT**

A motion controlled handheld device includes a display having a viewable surface and operable to generate an image and a gesture database maintaining a plurality of gestures. Each gesture is defined by a motion of the device with respect to a first position of the device. The gestures comprise symbol gestures each corresponding to a character from a preexisting character set. The device includes an application database maintaining at least one application and a gesture mapping database comprising a gesture input map for the application. The gesture input map comprises mappings of the symbol gestures to corresponding inputs for the application. The device includes a motion detection module operable to detect motion of the handheld device within three dimensions and to identify components of the motion in relation to the viewable surface. The device also includes a control module operable to load the application, to track movement of the handheld device using the motion detection module, to compare the tracked movement against the symbol gestures to identify a matching symbol gesture, to identify, using the gesture input map, the corresponding input mapped to the matching symbol gesture, and to provide the corresponding input to the application.

